

Claims:

1 1. A signal processor comprising a plurality of channels, each channel
2 configured to receive an input signal stream, to reduce the signal to a direct current signal
3 and to process the signal according to the stream signal, each channel having a plurality
4 of low pass filters configured to filter in-phase and quadrature-phase modulator outputs
5 with a first low pass filter and to filter a reference quadrature signals, and a gain control
6 configured to re-modulate gain adjusted output signals with the filtered quadrature
7 signals, the processor including an inverter to invert the in-phase filtered reference signal
8 to multiply the quadrature gain adjusted output signal and an output configured to output
9 a modulated output signal.

1 2. A signal processor according to Claim 1, wherein each channel includes
2 an oscillator configured to establish the center of the bandpass of the channel.

1 3. A signal processor according to Claim 1, wherein each channel includes a
2 gain input configured to receive a gain signal used to attenuate the channel signal.

1 4. A method of processing an input signal by correlating the input signal with
2 quadrature sources, comprising:
3 receiving an input signal and modulating it with a quadrature sinusoidal source
4 operating at the center frequency of a desired pass band,
5 filtering in-phase and quadrature-phase modulator outputs with a low pass filter,
6 filtering the reference quadrature signals with a second low pass filter,
7 adjusting the amplitude of the in-phase and quadrature-phase modulator outputs
8 with a gain controlling circuit or multiplier,
9 re-modulating the gain adjusted output signals by the filtered quadrature signals
10 using the quadrature filtered reference signal to multiply the in-phase gain adjusted
11 output signal and using an inverted version of the in-phase filtered reference signal to
12 multiply the quadrature gain adjusted output signal,
13 summing the resulting two outputs to generate an output.